

25. (Twice Amended) A method for [the] precisely targeting [targeted in vitro] integration of DNA into the genome of a [non-human] mammalian host cell [organism], said method comprising:

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- (i) introducing a nucleotide sequence comprising a first FLP recombination target site (FRT) into the genome of [cells which are compatible with the cells of the non-human host organism] said mammalian host cell, and
- (ii) [introducing a first DNA into the FLP recombination target site in the genome of said cells by] contacting said [cells] mammalian host cell of step (i) with [said] a first DNA [and] comprising a nucleotide sequence containing at least one FRT, in the presence of an FLP recombinase, [and thereafter
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- (iii) introducing the cells produced by the process of step (ii) into said non-human host organism] wherein said first DNA precisely targets said first FRT and integrates into the genome of said mammalian host cell of step (i).

26. (Twice Amended) A method for excising DNA that has been integrated into the genome of a mammalian host cell according to the method of Claim 25, [further] comprising contacting the genomic DNA from said [non-human] mammalian host [organism] cell with an FLP recombinase, thereby excising [recovering] the [transfected] integrated DNA [containing said first DNA] from the genome of said [transfected organism] mammalian host cell.

28. (Twice Amended) A method according to Claim 25, further comprising [introducing] contacting said mammalian host cell of step (ii) with a second DNA comprising a [FLP recombination target site into one of the FLP recombination

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[~~target sites~~] nucleotide sequence containing an FRT, in the presence of an FLP recombinase, wherein said second DNA precisely targets one of the FRTs of said [non-human] mammalian host [organism] cell and specifically integrates into the genome of said mammalian host cell.

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42. (Twice Amended) A method for the site-specific integration of [transfected] DNA into the genome of a mammalian cell wherein the [genomic DNA] genome of [the] said mammalian cell contains at least one [FLP recombination target site] FRT within a gene of interest, said method comprising:

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[(i)] contacting said [genome with FLP recombinase and] mammalian cell with a first DNA comprising a nucleotide sequence containing at least one FRT, in the presence of an FLP recombinase [; and thereafter

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(ii) maintaining the product of step (i)] under conditions suitable for site-specific integration of said first DNA [to occur] at [the FLP recombination target site] an FRT within the gene of interest in said genome of the mammalian cell, wherein the mammalian cell is transfected.

43. (Twice Amended) A method according to Claim 42, wherein said FRT(s) [FLP recombination target site in the genomic DNA of said mammalian cell] is/are positioned within a functional portion of a gene of interest.

44. (Twice Amended) A method according to Claim 42, further comprising [additionally] contacting said transfected mammalian cell with a second DNA [; wherein said second DNA contains at least one FLP recombination target site; and] comprising a nucleotide sequence containing at least one FRT, in the presence of an FLP recombinase, wherein said second DNA